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EXAMINER
ANWAR, MOHAMMAD S

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
Office Action Summary	10/597,126	SACHS ET AL.	
	Examiner	Art Unit	
	MOHAMMAD ANWAR	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 April 2009</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3,5-15 and 17-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,5-15 and 17-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>06 April 2009</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed on 4/6/09 have been fully considered but they are not

persuasive. Please see reply to applicant remarks;

         In regard to applicant remarks, determining whether one or more of said queued

data units contains a predetermined information, performing a conqestion notification

with respect to one or more queued data units if no queued data units contain said

predetermined information, and preventing a performance of a conqestion notification at

least with respect to said queued data units containing said predetermined information

and belonging to a same flow as said queued data units. (emphasis added). Kawakami

et al. clearly defines congestion prevention notification method (see Figures 27A and B,

paragraph 78 lines 1-3). Kawakami et al. has a judgment circuitry which sends out

notification based on pre-determined condition such as flow status table and threshold

values (see Figure 12, see paragraph 79 & 80). Therefore, the previous rejection is still

valid.

2.   All drawing objections and claim objections are withdrawn.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

   A person shall be entitled to a patent unless –

   (b) the invention was patented or described in a printed publication in this or a foreign country or in public
   use or on sale in this country, more than one year prior to the date of application for patent in the United
   States.

2.   Claims 1-3 and 14-15 are rejected under 35 U.S.C. 102(b) as being unpatentable by Kawakami et al. (U.S. PGPub. No. 2002/0136163).

     For claims 1 and 14, Kawakami et al. disclose a method of controlling a queue buffer arranged to queue data units received over a communication network (see paragraph 33 lines 5-9), comprising: invoking a congestion notification procedure under a predetermined condition (see paragraph 78 lines 1-3 which explains that the congestion notification is sent to devices which are judged based on pre-determined conditions), wherein said congestion notification procedure comprises determining whether one or more of said queued data units contains a predetermined information (see paragraph 80 lines 1-6, the congestion is judge on the predetermined conditions of each terminal), performing a congestion notification with respect to one or more queued data units if no queued data units contain said predetermined information (see paragraph 78 lines 1-3), and preventing a performance of a congestion notification at least with respect to said queued data units containing said predetermined information and belonging to a same flow as said queued data units (see paragraph 24 lines 1-5 which explains the notification message is sent to specific terminal where the problem occurs and thus preventing the message to be sent out to other devices).

     For claim 2, Kawakami et al. disclose wherein said performing of said congestion notification with respect to a given data unit comprises one of dropping said given data unit and marking said given data unit with a congestion notifier (see Figure 19 where the terminals are marked for congestion notifier based on their buffer status).

For claims 3 and 15, Kawakami et al. disclose wherein if one or more queued

data units contain said predetermined information, performance of congestion

notification with respect to any queued data units is prevented (see Figure 1A and Table

4A which shows individual congestion notification message is sent and all the other

terminals operate normal without getting congestion notification message).

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

3.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

4.   Claims 5, 7-9, 13, 17, 19-21 and 25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kawakami et al. in view of Lym et al. (U.S. PGPub. No.

2004/0093453).

   For claims 5 and 17, Kawakami et al. disclose determining whether a flow of

data units is: application limited, coming to an end or one or more data units of the flow

of data units fulfills a congestion notification prevention condition (see paragraph 88

lines 4-7 which shows that the congestion condition with respect to buffer is judged for

each port prior to issuing a congestion notification message to the specific port), and if

the flow of data units is application limited, the flow is ending or said one or more data

units of said flow fulfills said congestion notification prevention condition (see paragraph

97 lines 8-18 which explains a process of generating a congestion notification based on

utilization of individual port; see Figure 18, paragraph 194 lines 1-14 which calculates

the transfer flow amount and based on this amount, it can be determined if the flow is

coming to an end), setting predetermined congestion notification prevention information

in at least said one or more data units of said flow (see paragraph 99 which shows how

the configuration of the congestion status how it is generated based on utilization and

buffer level). Kawakami disclose all the subject matter but fails to mention application

limited data flow. . However, Lym et al. disclose wherein said congestion notification

prevention condition comprises an indication that the flow of data units is application

limited (see paragraph 120 lines 1-10 and paragraph 121 lines 1-4). Thus, it would have

been obvious to one ordinary skill in the art at the time of invention was made to include

Lym et al. application limited flow scheme into Kawakami et al. flow control scheme.

The method can be implemented in the memory. The motivation of doing this is to

ensure uninterrupted flow of data (see paragraph 24 lines 17-20).

   For claims 7 and 19, Kawakami et al. disclose wherein said congestion

notification prevention condition comprises an indication that the flow of data units is

coming to an end (see Figure 18, paragraph 194 lines 1-14 which calculates the transfer

flow amount and based on this amount, it can be determined if the flow is coming to an

end).

   For claims 8 and 20, Kawakami et al. and disclose all the subject matter but fails

to mention wherein said congestion notification prevention condition comprises an

indication that the flow of data units is application limited. However, Lym et al. disclose

wherein said congestion notification prevention condition comprises an indication that

the flow of data units is application limited (see paragraph 120 lines 1-10 and paragraph

121 lines 1-4). Thus, it would have been obvious to one ordinary skill in the art at the

time of invention was made to include Lym et al. application limited flow scheme into

Kawakami et al. flow control scheme. The method can be implemented in the memory.

The motivation of doing this is to ensure uninterrupted flow of data (see paragraph 24

lines 17-20).

For claims 9 and 21, Kawakami et al. disclose wherein said congestion notification prevention condition comprises an indication that said one or more data units of said flow carry predetermined signaling identifiers (see Figure 19, congestion status table with rate status indicator which indicates where to send the congestion notification message).

For claims 13 and 25, Kawakami et al. disclose wherein said predetermined congestion notification prevention information is a data unit count-down value that counts down the number of data units remaining in the flow (see Figure 18; paragraph 194 lines 1-14 where the transfer flow is measured based on the rate count down).

5.   Claims 6, 12, 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami et al. in view of Lym et al. as applied to claims 5 and 17 above, and further in view of Thoo et al. (E.P. No. 0,955,749 A1).

For claims 6 and 18, Kawakami et al. and Lym et al. disclose all the subject matter but fails to mention wherein said step of determining whether a congestion notification prevention condition is fulfilled comprises the analyzing of higher layer information. However, Thoo et al. from a similar field of endeavor disclose wherein said step of determining whether a congestion notification prevention condition is fulfilled comprises the analyzing of higher layer information (see paragraph 78 lines 1-20). Thus, it would have been obvious to one ordinary skill in the art at the time of an invention was made to include Thoo et al. analyzing scheme into Kawakami et al. and Lym et al. flow control scheme. The method can be implemented in a router or terminal.

The motivation of doing this is to control flow control accurately and achieve high

throughput and less congestion (see paragraph 12 lines 1-4).

For claims 12 and 24, Kawakami et al. and Lym et al. disclose all the subject

matter but fails to mention wherein said predetermined congestion notification

prevention information is a single bit. However, Thoo et al. from a similar field of

endeavor disclose wherein said predetermined congestion notification prevention

information is a single bit (see paragraph 32 lines 1-5). Thus, it would have been

obvious to one ordinary skill in the art at the time of invention was made to include Thoo

et al. bit scheme into Kawakami et al. and Lym et al. flow control scheme. The method

can be implemented in a packet header. The motivation of doing this is to reduce

bandwidth used by sending such indications, which would otherwise contribute to the

congestion (see paragraph 23 lines 1-3).

6.   Claims 10-11 and 22-23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kawakami et al. in view of Lym et al. as applied to claims 5 and 17

above, and further in view of Brothers et al. (U.S. Patent No. 6,822,955).

For claims 10 and 22, Kawakami et al. and Lym et al. disclose all the subject

matter but fails to mention wherein said data unit sender is part of a proxy server.

However, Brothers et al. from a similar field of endeavor disclose wherein said data unit

sender is part of a proxy server (see Figure 1 (20)). Thus, it would have been obvious to

one ordinary skill in the art at the time of invention was made to include Brothers et al.

proxy server scheme into Kawakami et al. and Lym et al. congestion control scheme.

The method can be implemented in a server or a router or a switch. The motivation of doing this is to use proxy server to establish communication between a device in a first network and a destination device having an arbitrary address on a second network outside of the first network. The method includes the step of generating an address resolution protocol packet to identify the arbitrary address of the destination device (see column 2 lines 5-11).

    For claim 11 and 23, Kawakami et al. and Lym et al. disclose all the subject matter but fails to mention wherein said proxy server is connected to a mobile communication network and arranged for receiving data units from a sending end point outside of said mobile communication network and relaying said data units to a receiving end point connected to said mobile communication network. However, Brothers et al .from a similar field of endeavor disclose wherein said proxy server is connected to a mobile communication network and arranged for receiving data units from a sending end point outside of said mobile communication network and relaying said data units to a receiving end point connected to said mobile communication network (see column 3 lines 52-65). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Brothers et al. proxy server scheme into Kawakami et al. and Lym et al. flow control scheme. The method can be implemented in a server or router. The motivation of doing this is to use proxy server to establish communication between a device in a first network and a destination device having an arbitrary address on a second network outside of the first network. The

method includes the step of generating an address resolution protocol packet to identify

the arbitrary address of the destination device (see column 2 lines 5-11).

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MOHAMMAD ANWAR whose telephone number is

(571)270-5641. The examiner can normally be reached on Monday-Thursday, 9am-

4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Derrick W. Ferris can be reached on 571-272-3123. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MOHAMMAD ANWAR
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